

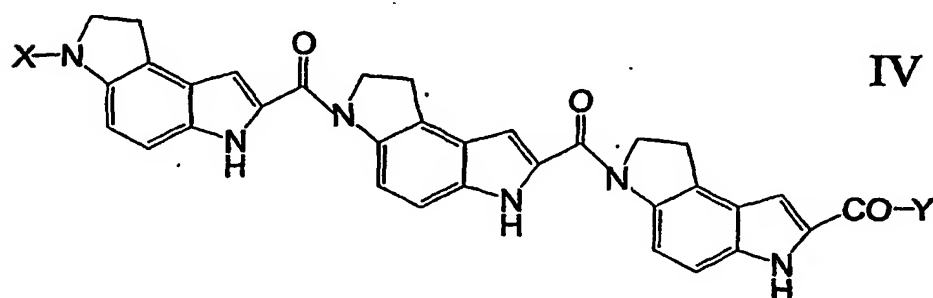
structure, so that at least one of the depicted nitrogen atoms is a ring atom of the dotted structure D<sup>1</sup> or the dotted structure D<sup>2</sup>.

12. The purified compound according to claim 11 wherein both of D<sup>1</sup> and D<sup>2</sup> are present.

13. The purified compound according to claim 12 wherein at least one of A and B is NH.

14. The purified compound according to claim 10 wherein at least one of A and B is NH.

15. A purified compound whose structure corresponds to Formula IV, or a pharmaceutically acceptable salt thereof

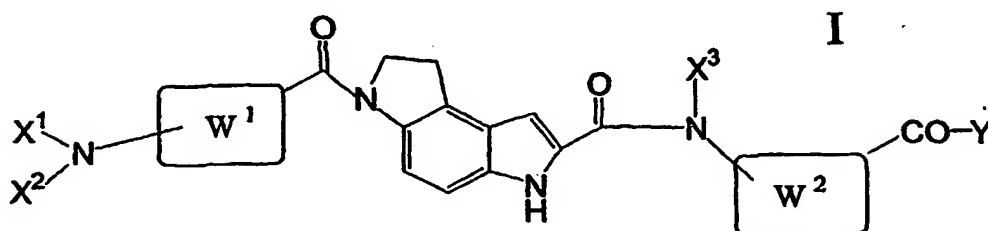


wherein X is hydrido or R<sup>1</sup>-C(O), R<sup>1</sup>-NHC(O), or R<sup>1</sup>-NHC(S), and R<sup>1</sup> is hydrido or ZQ,

Z is amino wherein the amino nitrogen is (i) unsubstituted, or (ii) substituted with one or two substituents containing a total of up to fourteen atoms that are carbon, nitrogen, oxygen or sulfur and which substituents are independently selected from the group consisting of an alkyl, aryl, heteroaryl, aralkyl, cycloalkyl, aralkoxycarbonyl,

## WHAT IS CLAIMED:

1. A purified compound whose structure corresponds to Formula I, below, or its pharmaceutically acceptable salt



wherein the structures  $W^1$  and  $W^2$  are the same or different and are an aromatic ring system containing one, two or three five-, six- or seven-membered rings of which at least one is aromatic,

$X^1$  and  $X^2$  are independently hydrido or  $R^1-C(O)$ ,  $R^1-NHC(O)$ , or  $R^1-NHC(S)$ , and  $R^1$  is hydrido or  $ZQ$ , or  $X^2$  is a bond between the depicted nitrogen atom and the structure  $W^1$  so that the depicted nitrogen atom is a ring atom of structure  $W^1$ ;

$X^3$  is hydrido or is a bond between the depicted nitrogen atom and the structure  $W^2$  so that the depicted nitrogen atom is a ring atom of structure  $W^2$ ;

$Z$  is amino wherein the amino nitrogen is (i) unsubstituted, or (ii) substituted with one or two substituents containing a total of up to fourteen atoms that are carbon, nitrogen, oxygen or sulfur that are independently selected from the group consisting of an alkyl, alkenyl, alkynyl, aryl, heteroaryl, aralkyl, cycloalkyl, heterocyclo, and a heterocycloalkyl group, group, or (iii) wherein the

amino nitrogen and two substituents attached thereto form a 5- to 8-membered heterocyclo or heteroaryl ring containing zero to two additional heteroatoms that are nitrogen, oxygen or sulfur, and

Q is a hydrocarbyl group containing two to about ten carbon atoms; and

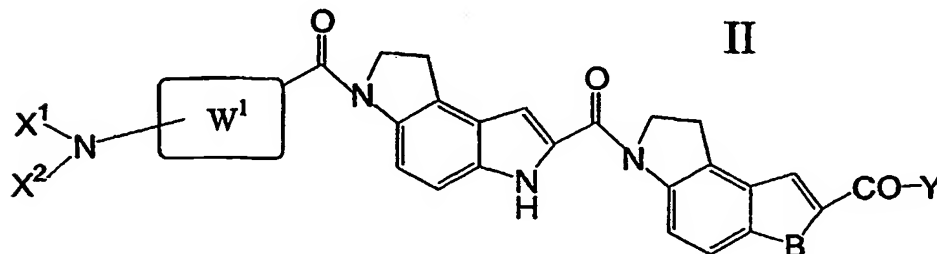
Y is O-R<sup>2</sup> or Z, wherein R<sup>2</sup> is hydrido, methyl or Q.

2. The purified compound according to claim 1 wherein one or both of W<sup>1</sup> and W<sup>2</sup> contains at least two fused rings.

3. The purified compound according to claim 1 wherein one or both of W<sup>1</sup> and W<sup>2</sup> contains three fused rings.

4. The purified compound according to claim 1 wherein one or both of W<sup>1</sup> and W<sup>2</sup> contains a ring atom a heteroatom that is oxygen, sulfur or nitrogen.

5. The purified compound according to claim 1 whose structure corresponds to Formula II, below, or its pharmaceutically acceptable salt



wherein B is O, NH or S, and each of W<sup>1</sup>, X<sup>1</sup>, X<sup>2</sup> and Y is as defined before.

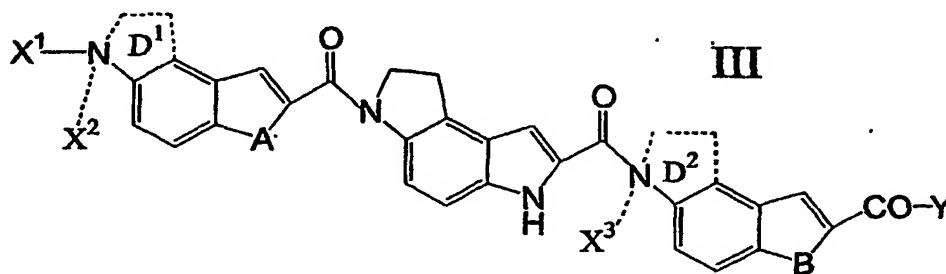
6. The purified compound according to claim 5 wherein B is NH.

7. The purified compound according to claim 6 wherein W<sup>1</sup> contains at least two fused rings.

8. The purified compound according to claim 7 wherein W<sup>1</sup> contains three fused rings.

9. The purified compound according to claim 8 wherein X<sup>2</sup> is a bond between the depicted nitrogen atom and the structure W<sup>1</sup> so that the depicted nitrogen atom is a ring atom of structure W<sup>1</sup>.

10. A purified compound whose structure corresponds to Formula III, below, or its pharmaceutically acceptable salt



wherein each of A and B is independently O, NH or S;

dotted portions of structures D<sup>1</sup> and D<sup>2</sup> are independently present or absent such that when either

is present, the corresponding  $X^2$  and  $X^3$  substituent is absent;

$X^1$  and  $X^2$ , when present, are independently hydrido or  $R^1-C(O)$ ,  $R^1-NHC(O)$ , or  $R^1-NHC(S)$ , and  $R^1$  is hydrido or  $ZQ$ , or when  $D^1$  is present,  $X^2$  is a bond between the depicted nitrogen atom and the dotted ring structure so that the depicted nitrogen atom is a ring atom of the dotted structure  $D^1$ ;

$X^3$  is hydrido or is a bond between the depicted nitrogen atom and the dotted structure so that the depicted nitrogen atom is a ring atom of the dotted structure  $D^2$ ;

$Z$  is amino wherein the amino nitrogen is (i) unsubstituted, or (ii) substituted with one or two substituents containing a total of up to fourteen atoms that are carbon, nitrogen, oxygen or sulfur that are independently selected from the group consisting of an alkyl, alkenyl, alkynyl, aryl, heteroaryl, aralkyl, cycloalkyl, heterocyclo, and a heterocycloalkyl group, group, or (iii) wherein the amino nitrogen and two substituents attached thereto form a 5- to 8-membered heterocyclo or heteroaryl ring containing zero to two additional heteroatoms that are nitrogen, oxygen or sulfur, and

$Q$  is a hydrocarbyl group containing two to about ten carbon atoms; and

$Y$  is  $O-R^2$  or  $Z$ , wherein  $R^2$  is hydrido, methyl or  $Q$ .

11. The purified compound according to claim 10 wherein at least one of  $D^1$  and  $D^2$  is present, at least one of  $X^2$  and  $X^3$  is a bond between the depicted nitrogen atom and the dotted ring

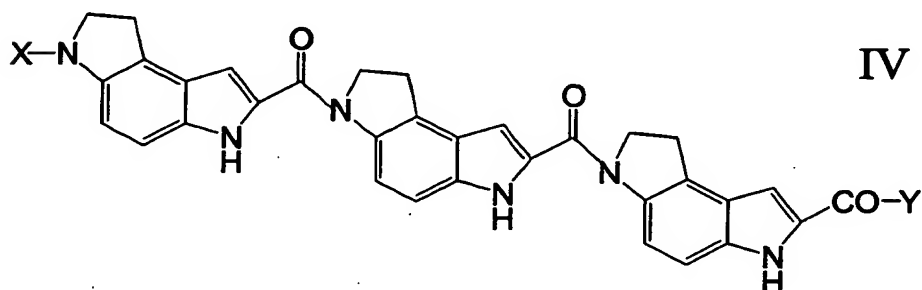
structure, so that at least one of the depicted nitrogen atoms is a ring atom of the dotted structure D<sup>1</sup> or the dotted structure D<sup>2</sup>.

12. The purified compound according to claim 11 wherein both of D<sup>1</sup> and D<sup>2</sup> are present.

13[14.] The purified compound according to claim 12 wherein at least one of A and B is NH.

14[15.] The purified compound according to claim 10 wherein at least one of A and B is NH.

15[16.] A purified compound whose structure corresponds to Formula IV, or a pharmaceutically acceptable salt thereof



wherein X is hydrido or R<sup>1</sup>-C(O), R<sup>1</sup>-NHC(O), or R<sup>1</sup>-NHC(S), and R<sup>1</sup> is hydrido or ZQ,

Z is amino wherein the amino nitrogen is (i) unsubstituted, or (ii) substituted with one or two substituents containing a total of up to fourteen atoms that are carbon, nitrogen, oxygen or sulfur and which substituents are independently selected from the group consisting of an alkyl, aryl, heteroaryl, aralkyl, cycloalkyl, aralkoxycarbonyl,

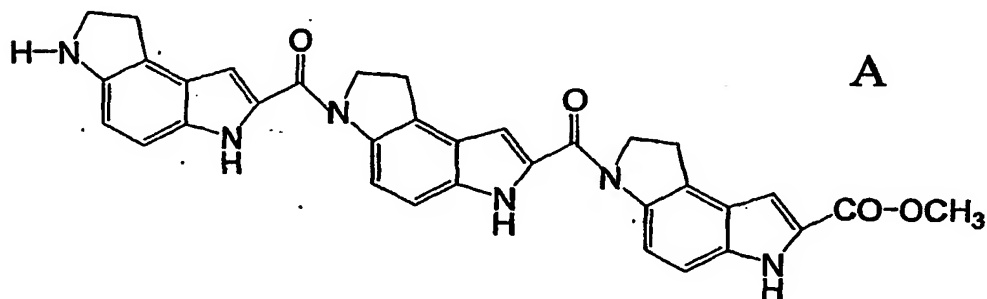
alkoxycarbonyl, arylcarbonyl, aralkanoyl, heteroarylcarbonyl and an alkanoyl group, or (iii) wherein the amino nitrogen and two substituents attached thereto form a 5- to 8-membered heterocycle or heteroaryl ring containing zero to two additional heteroatoms that are nitrogen, oxygen or sulfur, and

Q is a hydrocarbyl group containing two to about ten carbon atoms; and

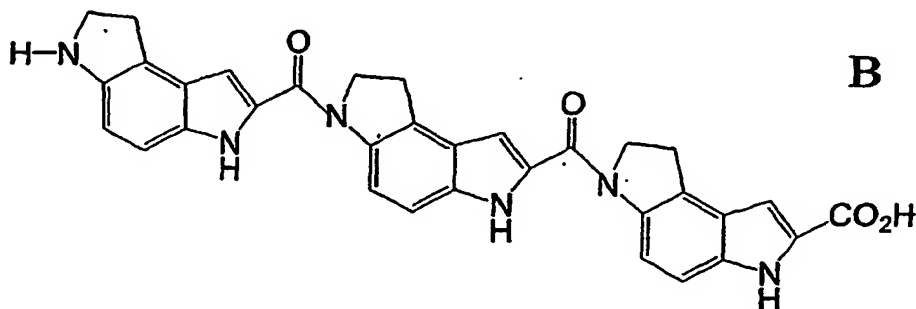
Y is O-R<sup>2</sup> or Z,

wherein R<sup>2</sup> is hydrido, methyl or Q.

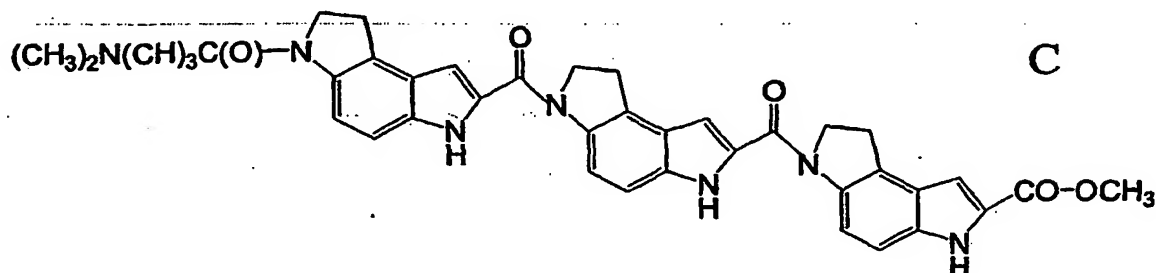
16. The purified compound according to claim 15 that corresponds in structure to Formula A, or a pharmaceutically acceptable salt thereof



17. The purified compound according to claim 15 that corresponds in structure to Formula B, or a pharmaceutically acceptable salt thereof



18. The purified compound according to claim 16 that corresponds in structure to Formula C, or a pharmaceutically acceptable salt thereof



19. A pharmaceutical composition that contains an effective amount of a purified compound or its salt of claim 1 dissolved or dispersed in a physiologically acceptable diluent.

20. A pharmaceutical composition that contains an effective amount of a purified compound or its salt of claim 5 dissolved or dispersed in a physiologically acceptable diluent.

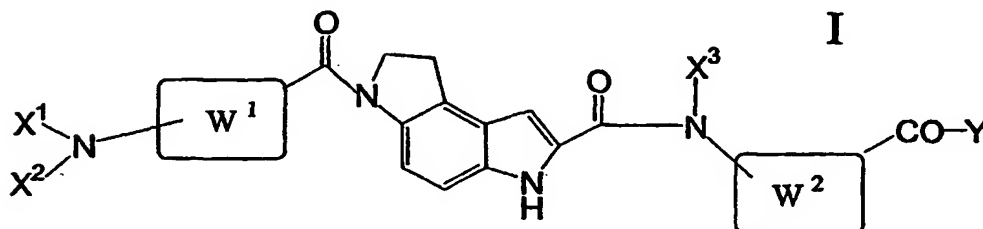
21. A pharmaceutical composition that contains an effective amount of a purified compound or its salt of claim 10 dissolved or dispersed in a physiologically acceptable diluent.

22. A pharmaceutical composition that contains an effective amount of a purified compound or its salt of claim 15 dissolved or dispersed in a physiologically acceptable diluent.

23. A method of treating a biological function in an animal that is mediated by integrin/Paxillin binding that comprises administering to a mammal in need thereof an



effective amount of a compound that corresponds in structure to Formula I or a pharmaceutically acceptable salt of said compound dissolved or dispersed in a physiologically acceptable diluent



wherein the structures  $W^1$  and  $W^2$  are the same or different and are an aromatic ring system containing one, two or three five-, six- or seven-membered rings of which at least one is aromatic,

$X^1$  and  $X^2$  are independently hydrido or  $R^1-C(O)$ ,  $R^1-NHC(O)$ , or  $R^1-NHC(S)$ , and  $R^1$  is hydrido or ZQ, or  $X^2$  is a bond between the depicted nitrogen atom and the structure  $W^1$  so that the depicted nitrogen atom is a ring atom of structure  $W^1$ ;

$X^3$  is hydrido or is a bond between the depicted nitrogen atom and the structure  $W^2$  so that the depicted nitrogen atom is a ring atom of structure  $W^2$ ;

Z is amino wherein the amino nitrogen is (i) unsubstituted, or (ii) substituted with one or two substituents containing a total of up to fourteen atoms that are carbon, nitrogen, oxygen or sulfur that are independently selected from the group consisting of an alkyl, alkenyl, alkynyl, aryl, heteroaryl, aralkyl, cycloalkyl, heterocyclo, and a heterocycloalkyl group, group, or (iii) wherein the amino nitrogen and two substituents attached thereto

form a 5- to 8-membered heterocyclo or heteroaryl ring containing zero to two additional heteroatoms that are nitrogen, oxygen or sulfur, and

Q is a hydrocarbyl group containing two to about ten carbon atoms; and

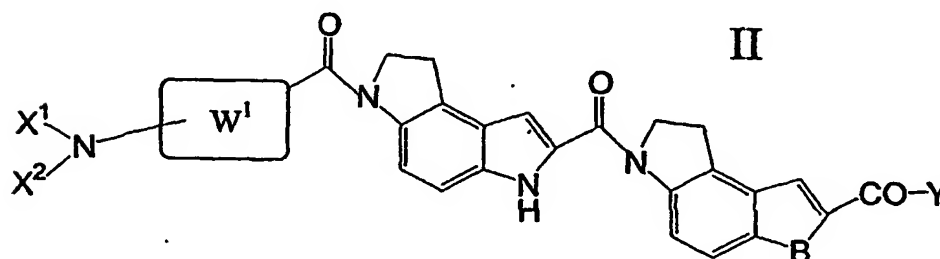
Y is O-R<sup>2</sup> or Z, wherein R<sup>2</sup> is hydrido, methyl or Q.

24. The method according to claim 23 wherein said biological function is inflammation.

25. The method according to claim 23 wherein said biological function is scarring during wound healing.

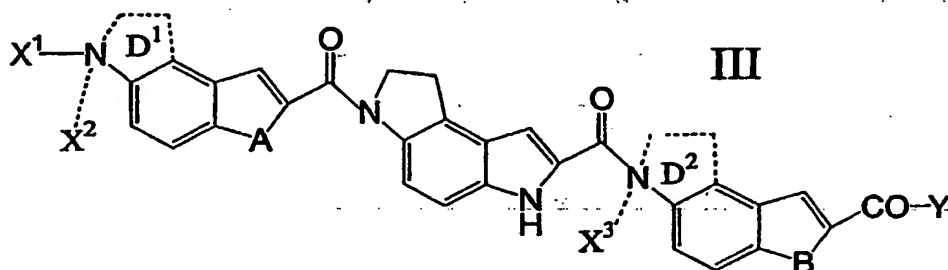
26. The method according to claim 23 wherein said biological function is atherosclerosis.

27. The method according to claim 23 wherein said compound corresponds in structure to Formula II, or a pharmaceutically acceptable salt thereof



wherein B is O, NH or S, and each of W<sup>1</sup>, X<sup>1</sup>, X<sup>2</sup> and Y is as defined before.

28. The method according to claim 23 wherein said compound corresponds in structure to Formula III, or a pharmaceutically acceptable salt thereof



wherein each of A and B is independently O, NH or S;

dotted portions of structures D<sup>1</sup> and D<sup>2</sup> are independently present or absent such that when either is present, the corresponding X<sup>2</sup> and X<sup>3</sup> substituent is absent;

X<sup>1</sup> and X<sup>2</sup>, when present, are independently hydrido or R<sup>1</sup>-C(O), R<sup>1</sup>-NHC(O), or R<sup>1</sup>-NHC(S), and R<sup>1</sup> is hydrido or ZQ, or when D<sup>1</sup> is present, X<sup>2</sup> is a bond between the depicted nitrogen atom and the dotted ring structure so that the depicted nitrogen atom is a ring atom of the dotted structure D<sup>1</sup>;

X<sup>3</sup> is hydrido or is a bond between the depicted nitrogen atom and the dotted structure so that the depicted nitrogen atom is a ring atom of the dotted structure D<sup>2</sup>;

Z is amino wherein the amino nitrogen is (i) unsubstituted, or (ii) substituted with one or two substituents containing a total of up to fourteen atoms that are carbon, nitrogen, oxygen or sulfur

that are independently selected from the group consisting of an alkyl, alkenyl, alkynyl, aryl, heteroaryl, aralkyl, cycloalkyl, heterocyclo, and a heterocycloalkyl group, group, or (iii) wherein the amino nitrogen and two substituents attached thereto form a 5- to 8-membered heterocyclo or heteroaryl ring containing zero to two additional heteroatoms that are nitrogen, oxygen or sulfur, and

Q, Y and Z are as defined before.

29. The method according to claim 23 wherein said animal is a mammal.

30. The method according to claim 23 wherein said animal is a reptile.

31. The method according to claim 23 wherein said integrin is the  $\alpha 4$  integrin.